

IN THE CLAIMS

Please amend the claim as follows:

1. (Currently Amended) A wideband erbium-doped optical fiber amplifier, for use with a first and second wavelength band optical signals, having a first optical path and a second optical path parallel to each other, comprising:

a first amplifying section disposed on the first optical path, the first amplifying section including a first erbium-doped optical fiber configured to amplify the first-band optical signals; and a filter configured to gain-flatten the amplified first-band optical signals, ~~wherein and to reflect a reflected portion of the first band optical signal by the filter is directed to the second optical path; and~~

a second amplifying section disposed on the second optical path, the second amplifying section having a second erbium-doped optical fiber and configured to amplify received second-band optical signals,

~~wherein the reflected first-band optical signal is used to pumps the second erbium-doped optical fiber.~~

2. (Original) The wideband erbium-doped optical fiber amplifier as claimed in claim 1, wherein the wideband erbium-doped optical fiber amplifier is disposed on an optical fiber through which first and second wavelength band optical signals are transmitted.

3. (Original) The wideband erbium-doped optical fiber amplifier as claimed in claim 1, wherein the first and second wavelength band optical signals are a C-band and a L-band optical signal.

4. (Currently Amended) The wideband erbium-doped optical fiber amplifier as claimed in claim 3, further including a circulator disposed between the second optical path and the filter, the circulator ~~used to~~ configured to output the amplified C-band optical signal to the filter and the reflected portion of the first band optical signal by the filter to the second optical path.

5. (Currently Amended) The wideband erbium-doped optical fiber amplifier as claimed in claim 1, wherein the ~~reflected~~ portion of the first band optical signal reflected by the filter is a non-uniform portion in the gain spectrum.

6. (Currently Amended) The wideband erbium-doped optical fiber amplifier as claimed in claim 4, further comprising a first wavelength division multiplexing optical coupler configured to divide the received C-band and L-band optical signals and to provide the C-band optical signal to the first optical path and the L-band optical signal to the second optical path.

7. (Currently Amended) The wideband erbium-doped optical fiber amplifier as claimed in claim 6, further comprising a ~~fifth-second~~ wavelength division multiplexing optical coupler configured to couple the C-band and L-band optical signals from the first and second optical paths.

8. (Currently Amended) A wideband erbium-doped optical fiber amplifier as claimed in claim 4, wherein the first amplifying section further comprises:

a first pumping light source configured to output a first pumping light for use by the first erbium-doped optical fiber; and

a second wavelength division multiplexing optical coupler configured to provide the first pumping light to the first erbium-doped optical fiber.

9. (Currently Amended) A wideband erbium-doped optical fiber amplifier as claimed in claim 8, wherein the first amplifying section further comprises a first isolator disposed on the first optical path, the first isolator configured to intercept backward light an Amplified Spontaneous Emission output from the first erbium-doped optical fiber.

10. (Currently Amended) A wideband erbium-doped optical fiber amplifier as claimed in claim 1, wherein the second amplifying section further comprises:

a second pumping light source configured to provide a third-second pumping light for use by the second erbium-doped optical fiber; and

a fourth wavelength division multiplexing optical coupler configured to provide the third-second pumping light to the second erbium-doped optical fiber.

11. (Currently Amended) A wideband erbium-doped optical fiber amplifier as claimed in claim 10, wherein the second amplifying section further comprises a second isolator disposed on the second optical path, the second isolator configured to intercept backward light an Amplified Spontaneous Emission output from the second erbium-doped optical fiber.

12. (Original) A wideband erbium-doped optical fiber amplifier as claimed in claim 4, wherein the filter comprises a chirped optical fiber grating.

13. (Original) A wideband erbium-doped optical fiber amplifier as claimed in claim 4, wherein the second erbium-doped optical fiber is pumped forward by the reflected C-band optical signal.

14. (Original) A wideband erbium-doped optical fiber amplifier as claimed in claim 1, wherein the second erbium-doped optical fiber is pumped backward by the reflected C-band optical signal.